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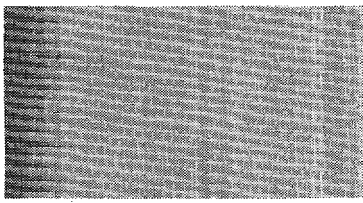
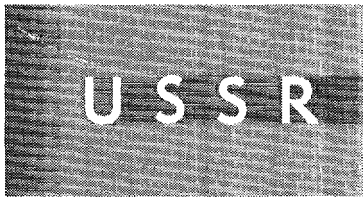
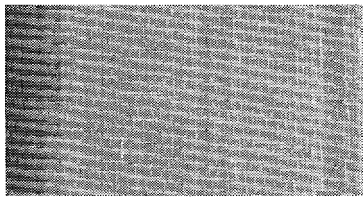
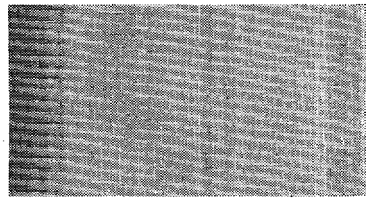




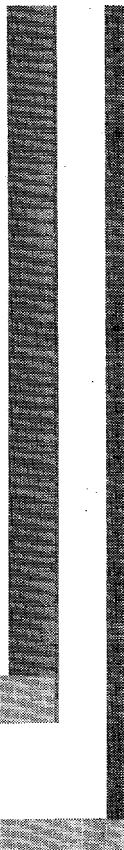




TRANSLATIONS ON USSR SCIENCE AND TECHNOLOGY

BIOMEDICAL AND BEHAVIORAL SCIENCES

(FOUO 37/78)



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BIOMEDICAL AND BEHAVIORAL SCIENCES

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PARAPSYCHOLOGY

SURVEY AND EVALUATION OF PARAPSYCHOLOGY

Sverdlovsk URAL'SKIY SLEDOPYT in Russian 1977 pp 47-51

[Article by Nikolay Kitayev and Nikolay Yermakov: "Incredible, But True"]

[Text] Some new branches of science are instantly admitted into the scientific community, while others are regarded with skepticism.

The study of the still-unknown properties of the human psyche falls into the latter group. "Parapsychology," "bioinformation," "psychotronics"--such are the terms used to refer to the new science which concerns itself with those properties.

Since ancient times men have encoutered the psychic riddles of lamas, yogis, shamans, Magis and sorcerers. The papyri of Ancient Egypt, the cuneiform writings of Sumer, the Sanskrit literature of India and a multitude of Medieval chronicles--all these mention certain extraordinary properties of the human psyche which may be classified in one way or another.

Modern scientists classify them as follows:

Telepathy. This is mental intercourse between transmitting and receiving subjects in which information is exchanged without the use of ordinary sensory means. The term is also used to indicate the perception of another being at a distance.

Clairvoyance. This is the perception of events or objects without the help of the known sensory organs.

Biophysical effect, also known as dowsing. This is the ability of certain persons, using an antenna (such as twig or bent wire), to observe the presence of underground water, ore, buried objects and the like.

Soviet scientist I. M. Kogan in generalizing attempts which have been made to explain these paranormal phenomena, divides them into two general

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categories. In the first group, greatest reliance is placed on the hypothesis of an association between the phenomenon (mainly telepathy) and an electromagnetic field excited by biocurrents. This particular hypothesis is consistent with a number of known telepatic phenomena, and it does not contradict any natural laws.

Underlying the second category referred to are certain philosophic concepts which emerge from the fact that all processes in the universe are subject to unique laws.

Apart from all this, it is first necessary to have solid facts before we proceed to confirming the truth or error of any particular hypothesis. In the case of paranormal phenomena it is difficult to obtain such facts, simply because such phenomena are not reproducible on demand of the investigator. Mechanical phenomena can be reproduced very readily, but psychic laws become apparent only with a combination of a large number of circumstances.

More than 60 years ago the great physiologist I. P. Pavlov, during the Twelfth Session of Naturalists and Physicians, observed that the advance of science, vigorous as it had been since the time of Galileo, had still been somewhat retarded on account of the difficulty of studying the extremely complex higher divisions of the brain. Since that time, students of the mysteries of the brain have indeed advanced very far, but a great deal remains which is enigmatic.

Today more than 240 laboratories and societies in 30 different countries are engaged in the study of paranormal phenomena, and scientific degrees are conferred in this subject. Soviet psysiologist I. F. Tomashevskiy, for example, has defended his candidate's dissertation on the theme "The Physical Bases of Mental Suggestion." Czechoslovak M. Ryzl defended his 1962 dissertation with a convincing description of experiments in developing parapsychic abilities with the help of hypothetical suggestion.

Parapsychology stands at the meeting place of several areas of science. Taking up the achievements of medicine, electronics and molecular biology, it addresses itself to the unusual capabilities and hidden reserves of the human psyche. The problems involved are very complex, for we have no idea as yet of the form of energy by which living organisms interact at a distance.

The novelty and imprecision of many of the questions taken up by parapsycology have made it the target of bitter attacks, at times so prejudiced that the critic has been rebuked by the press. That is what happened in the case of V. L'vov's book FABRIKANTY CHUDES ("Fabricators of Miracles"), published by Lenizdat in 1974. Unverified facts, unjustified denial of test made by known scientists, and, finally, personal attacks on the scientisis themselves,

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earned L'vov a well-deserved dressing down in the November 1974 issue of ZHURNALIST, when his incompetence to deal with a number of the questions involved as well as his superficial knowledge of the subject in general were brought out.

Nevertheless, we should keep in mind that the present limitations of parapsychological knowledge are sometimes taken advantage of by swindlers, the exposure of whom casts a certain unfavorable light on the new science. For this reason an uncritical approach to clearly sensational and exhibitionistic publications may very well do more harm than good.

Corresponding Member of the USSR Academy of Pedagogical Sciences V. P. Zichenko and Academician A. N. Leont'yev comment as follows: "Within the scope of what is commonly understood by the term 'parapsychology' we must distinguish between the 'supernatural' phenomena proclaimed by mystics and charlatans, and certain other phenomena which actually exist, though not as yet having received a satisfactory scientific explanation."

We have attempted in the present sketch to offer a survey of the published literature dealing with the criminological use of parapsychology in one form or another, limited though this literature may be. More than 500 articles on various aspects of parapsychology were published in the USSR alone during 1963-1973, but these deal only scantily with the criminological implications. Nevertheless, we shall go into that phase of the subject.

Telepathists

Telepathy is the most familiar area of parapsychic phenomena. Dr. Krok, an outstanding psychologist of the last century, made a long study of the problem of hypnotic suggestion and crime, and finally adopted a negative view of the use of telepathy in crime detection.

A. Moll, president of the Berlin Psychological Society, in his work "Prophecy and Clairvoyance" denouncing swindlers as false parapsychologists, points out the special training of "lebashi"—persons who, in an hypnotic state, are able to locate criminals in some extrasensory manner, and even at a great distance. Of interest in this connection are ancient and medieval sources which mention precisely the same training and use of children in criminal research. It is possible that these early efforts were based on the hidden reserves of the youthful psyche which we no longer know how to tap.

German criminologist G. Schneikert published a book in our own country half a century ago in which he writes of telepathic mediums: "Ambitious, aggressive persons hankering for reputations as crime-solvers, though they may be without an iota of advanced criminological knowledge, have only to take advantage of police difficulties and the natural emotions of the victim in order to exercise their 'telepathic power'. If their guesses

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happen to be correct, that works to their undeserved advantage; if not, then nothing is lost."

That is a pretty strong statement, of course, but we must not regard Schneikert's seeming prejudice as a denial of parapsychic facts in general. Far from that, he was concerned with denouncing those mediums who often enough in real life swindle the naive man in the street, and not without pecuniary motive. But in Schneikert's own Germany during the 1920s there were several cases of the use of telepathy in the solution of mysterious murders and robberies. Several eminent specialists in psychology and parapsychology (Helwig, Tischner and Geise) were invited to attend a court trial being held in the city of Bernburg, in which the judges were interested in testing the validity of paranormal means of obtaining information, and its possible use in criminal proceedings. In this instance a telepathist named Drost was involved who specialized in identifying criminals.

But here is an excerpt drawn from court records of those times: "In examining all instances under judicial examination, the court is in full agreement with the experts that telepathy is achievable and probable when the thought of any criminal at a seance, emerging from either the conscious or the subconscious sphere, is transmitted directly to a medium without the help of known sensory organs...

In the opinion of the experts, the many tests conducted by Drost which showed positive results support the probable existence of some sort of supernatural power in mediums."

The Austrian To-Rama was another famous personality of the time, who was able to hypnotize both animals and spectators at a circus and also to induce insensitivity to pain. However, To-Rama soon after decided to become a "criminological telepathist", and in a 1934 session with scientists at the criminological institute and university in Prague his fradulent character was revealed.

Of some interest in this connection was the exposure of a certain "telepathist", A. R., who had been invited by the journal ZNANIYE-SILA for a demonstration of his supposed powers. A. R. drilled a hole in the wall of the editor's office, through which he was perfectly able to observe supposedly invisible objects in the next room! One of the scientists present at the unmasking of this swindler remarked bitterly: "I suppose that every self-respecting rogue has to try his hand at clairvoyance or telepathy sooner or later. Especially in foreign countries where they don't use a plush room as a testing laboratory for 'telepathists', but where, at least, it is possible to do a lot more work on this subject."

Some authorities say that the existence of telepathy would contradict the doctrine of I. P. Pavlov. But coming out against any such dogmatic interpretation of the great physiologist is D. A. Biryukov, corresponding member

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of the USSR Academy of Pedagogical Sciences: "Instead of developing Pavlov's doctrine on the basis of his own methods and principles, we have turned it into a mere explanatory tool. The point here is that the striking classical information extracted by Pavlov and his colleagues in their study of dogs is absolutely inadequate to explain the profound complexity of the psychic activity of man."

During the period 1942-1946 the Office of Strategic Services, a military and political reconnaissance agency, was active in the United States. In 1947 it formed the basis for the Central Intelligence Agency. The OSS was headed by General William Donovan, a leading intelligence specialist of the time. Donovan was a sober and calculating man who, back in the years of World War I, had been a confidant of President Wilson. People who were well acquainted with the general remark that "during the time of his public service Donovan exhibited real talent in surrounding himself with eminent specialists, so he was able to extend his sphere of activity over the most varied fields."

An innovator in the intelligence field, Donovan recruited for his staff a great number of varied "specialists" indeed--more precisely, thieves, pickpockets, safecrackers and experienced hypnotists! Donovan knew that his old rival, Admiral Canaris, Hitler's chief of military intelligence, was pursuing a similar recruitment policy. However, this American Knight No. 1 of the Cloak and Dagger had at his disposal a special "staff" which was not available to the German. This consisted of several telepathic specialists, no less, who were quite different from the fellows who overawe the public at circuses or on the stages of music halls! That Donovan actually employed these people is an established fact, though the particular manner in which they were put to use remains unknown to this day. Nevertheless, it is hard to imagine that the pedestrian-minded general would invest money in anyone who did not have some real parapsychological ability. Another point is that prospective intelligence in those days had to pass complicated examinations and demonstrate their quality before a very exacting commission over a period of several weeks.

In our own country very great fame among mediums was realized by Wolf Messing. His outstanding abilities in thought transferance, and his extensive exhibitions, brought out a varied response. Some writers have considered Messing as being very sensitive to the ideomotor acts of his partner, which would explain his puzzling accomplishments.

Ideomotor acts are involuntary, but perceptible movements unconsciously executed by a person at the moment he gets a clear mental impression of some action. As I. P. Pavlov remarks, "It was long ago observed and scientifically demonstrated that the moment you think about some particular bodily movement you involuntarily and unconsciously execute that movement."

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But Messing's capabilities, which cannot be explained on the basis of ideomotorism, have been discarded by a number of authorities as running counter to the Pavlovian doctrine. Still, Messing repeatedly exposed criminals, and his abilities are entirely explainable on the basis of psychotronics.

The recently deceased M. A. Kuni, who was able to unravel a number of crimes, had telepathic abilities similar to those of Messing. During the interrogation of some person who concealed his name and the whereabouts of his accomplices, Kuni was able to come up with the necessary facts and to do so without asking any questions whatever. He employed no skills beyond the unique powers of the telepathist.

In similar fashion, Kuni once produced the precise date of birth of a woman who had specified a later date at one of his public appearances.

Tofik Dadashev, who performed with great success around the country a few years ago, likewise exhibits talents not explainable by the theory of ideomotor acts. Given varied examinations by a number of commissions, Dadashev successfully passed all of them, demonstrating not only his mind-reading ability but also a capacity for influencing people around him. Presented by criminologists with the task of identifying three criminals from a set of photographs, Dadashev did so with complete success. Beyond this, Dadashev is quite able to "read" the thoughts of foreigners without even knowing their language. This is explained by his imagic perception of the thoughts and experiences of the people he meets.

In our own country, K. Nikolayev, Ye. Vinogradov and some others have passed similar psychological tests.

Clairvoyants

A second question of interest to us here is the phenomenon of criminological clairvoyance.

We shall not go into the pre-Revolutionary literature on this subject (the magazine REBUS published a great many articles on clairvoyance), since the bulk of this material is an inseparable mixture of mysticism and fact and is therefore invalidated.

To return to H. Schneikert's "The Secret of the Criminal and the Means of Its Revelation": "All cases of known identification of criminals, recovery of stolen articles or location of missing persons," he maintains, "can be ascribed to the cleverness and perseverance of the fortune-teller or clairvoyant, but not to clairvoyance as such. Admit, if you like, that there might be an atom of truth in the doctrine of clairvoyance; the fact remains that 'clairvoyance on demand' is an impossibility."

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Of course, a scientist who has not overburdened himself with special research is likely to be somewhat on the negative side. But what do the recorded facts of the matter have to say?

In 1930 a passenger plane crashed in France killing 48 persons, and a special commission was set up to investigate the causes of the tragedy. The well-known clairvoyant E. Garette, in a trance state, was able to offer an immediate down-to-earth, technically correct description of the flight and the causes of the crash. Some time later the commission came out with conclusions which agreed with Garette's in every particular.

We need not at this point offer a long list of authorities who acknowledge the existence of clairvoyant phenomena. Let us recall the remarks of I. P. Pavlov: "...In certain instances, in explaining ordinary conscious action, the human ability to differentiate becomes unusually acute. Under the special conditions of so-called clairvoyance, this ability to differentiate approaches an infinite degree of acuity."

The Polish engineer Stefan Ossowecki was popular as an "outstanding clairvoyant" during the 1920s and 1930s. One could show Ossowecki any sort of object, and would at once be able to describe the physical appearance of the owner of the object, as well as the person's recent psychic experiences. The police resorted to Ossowecki's help in solving very difficult cases. Professor S. Manczarski, who observed Ossowecki for a long period, concluded that certain "traces" remaining on the object were absorbed by the medium's skin, and that a chemical reaction occured there which intensified the "traces". Processes of the same sort are well known to chemists. The "trace" acts on the nervous system of the medium, signals are transmitted to the cerebrum and are there analyzed. Manczarski was for many years a student of parapsychic qualities. He summarizes his work as follows:

"...Paranormal phenomena, so-called, are really ordinary physical phenomena based on the transfer of energy. This energy can be measured and calculated, despite its insignificant magnitude."

African explorer Lawrence Green in journeying around the continent "kept running across facts indicating the existence of extrasensory perception, telepathy and clairvoyance among primitive peoples..." Green's book contains accounts of clairvoyance being used to solve crimes.

Traveler D. Corbett, in notes taken by the present authors 15 years ago, describes how the prime minister of Nepal recovered a stolen jewel with the help of a clairvoyant.

Gerard Krause, one of the best known Dutch mediums, who has aided police in finding lost children, missing objects and bodies, was studied by parapsychologists of Utrecht University for a period of 20 years. Krause goes into a twilight state in which a series of pictures pass before his inner

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eye in the manner of motion picture scenes. Everything he says during this state is recorded on magnetic tape. In locating a missing body, he confidently describes the scene and the surroundings, no matter how far away these may be, and the police are very quickly able to find the victim. Many such examples of Krause's performances are attested by witnesses, tape recordings and police documentation. This medium has successfully solved a number of serious crimes, and has even been able to explain the causes of industrial accidents and breakdowns. A man without technical education, he is able to pinpoint minute disorders which are later confirmed by laboratory examination. Nevertheless, some of Krause's assertions, being of a negative character, might be regarded as errors.

Czeslav Klimuszko is a Polish clairvoyant whose diaries are currently being published in the journal LITERATURA. Klimuszko is concerned mainly with the search for dead or missing children, making use of photographs taken at any time in their lives. Extracts from his diaries are translated into Russian. Klimuszko was of substantial help in the search for the criminals who robbed the Wolow national bank of 12 million zlotys. Using a photograph of a missing person, Klimuszko is able to specify the exact location of the subject, living or dead; the distance involved is of no importance. There are, however, some restrictions in the use of photography. Photographs taken for a parapsychic seance must be no older than 10 years and must not be touched up. Any photograph used by Klimuszko must not have been arrried around a long time by a second person, nor must it have been stored with other photographs. In addition, it is desirable that the missing person should have been photographed in a shady place, and the subject must not have been intoxicated. The genuineness of Klimuszko's abilities is confirmed by his many years of performance, though of course the essence of the phenomenon he typifies remains unclear to scientists.

At the present time a whole group of people possessing rare parapsychic gifts are known, such as the Frenchwoman Marie Maire, the Brazilian Jose Pedro de Freytas and the Italian woman Peccoc. In Europe alone there are 20-30 mediums who function in crime detection. Making a special study of this problem in 1975, the American journalist Rudolf reports that a growing number of jurists are coming out in favor of the use of mediums.

There are people of similar capability in the USSR. In Chitinskaya Oblast, to name one example, there is an aged woman, A. G. Popova, who is able to locate lost cattle, various missing objects and dead bodies. Her methods are similar to those of Krause. Soviet scientist L. V. Vilenskaya devoted an article to Popova's abilities which was published in 1975 in the INTERNATIONAL PARAPSYCHOLOGICAL JOURNAL (London).

Also well-known are instances of the appearance of paranormal abilities following trephining of the skull, or from the use of certain narcotics. The first of these was deliberately used by Tibetan lamas in connection with the higher degrees of their orders (the candidate would have repeated examinations and continuous instruction for over 30 years!), though

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surgical methods of any sort occupy only a very modest place in Tibetan medical practice. In the USSR, as late as the 1930s, there were living several lamas of the Tsanit movement ("tsanit" means wisdom) who had experienced the operation. At that time their remarkable psychic capacities were of use in searching out criminals and persons lost without a trace. The secret of this surgical operation is unknown.

Still another method has been used in Africa, America and Medieval Europe. The celebrated astrologer-clairvoyant Nostradamus at the start of his career was continually busy with alchemical experiments, and studied a large number of narcotics. Jacques Bergier, eminent specialist in scientific research and scholar of ancient history, concluded that Nostradamus had discovered one narcotic of unusual parapsychic force. Events occurring down to our own times have confirmed the remarkable predictive powers of Nostradamus. Among these may be mentioned several political murders and revolutions, all of which took place at the times specified in his prophecies.

Here we come to the most enigmatic branch of clairvoyance--prophecy, or the extrasensory receipt of information about future events. The reality of this phenomenon is confirmed by a number of historical examples, despite an overburden of mysticism. There remain detailed descriptions of the prophetess Cassandra, in Homer's "Iliad," the Delphic Pythians and the Roman Sibyls. The great Soviet jurist M. Gernet in his five-volume "History of the Czarist Prison" recalls the prophesying monk Avel', who was confined for many years in the terrible casemates of Schlüsselburg and the Solovetskiy Monastery. This indubitably real person certainly possessed the gift of prevision. Avel' accurately forecast the year and day of the deaths of Catherine II and Paul I, and the year of the French invasion of Russia. His prophecies earned him 20 years in prison.

One hypothesis is that all processes taking place in the universe are interconnected by laws of causality which exhibit themselves not only in the past, but indicate as well all events which will take place in the future. Viewed on that basis, prophecy is entirely explainable: that which we perceive as a preview of the future, as a consequence of what has happened in the past, has in reality already been predetermined by the laws of causality.

Dowsers

The following area of parapsychology is that of dowsing. Known from very ancient times (there are references to it in the Bible), biophysical effect is not now embraced by any theory. Its reality, however, has been fully confirmed by a number of special experiments run under the aegis of UNESCO. An interdepartmental commission was set up in the USSR in 1974 for the coordination of work being done on the phenomenon of biophysical effect.

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In this effort, tens of thousands of tests were run at a great many different points in the country. From a large number of instances illustrating the practical application of the effect, one may select the work of the young scientist Ogil'vi, who was able to determine the dimensions and layout of karst rifts underlying the asphalt cover of Moscow streets, near Khoroshevskoye Highway. During repair of Ostankinskiy Court, the underground surveying plans for which had been lost beyond recall, Ogil'vi used precisely the biophysical effect in order to determine the configuration of the ancient karstic drainage system.

Since ancient times dowsers have been called upon to investigate crimes and discover buried valuables and corpses. French dowser Jacques Eimer brilliantly solved the terrible murder of a Lyons family in 1692. Eimer was so famous that his criminological exploits have been the subject of an extensive literature. French physicist Rocquard in his book "The Sign of Dowsing" attempts to find some rational explanation of such cases of finding lost bodies and murder weapons. His explanation is that there is an increase of ion concentration in underground water close to the concealed object.

In our own century there have been training schools for dowsers in a number of countries. In the United States dowsers formed a union numbering 25,000 members.

It is possible that development of further knowledge on this phenomenon will make possible its use in criminal cases in which a large open area must be examined, such as a plain or a forest.

In 1966 C. Baxter, American specialist in electronic detectors and long-time head of the Research Committee of the Academy of Criminalogical Sciences, observed a curious phenomenon when applying pickup electrodes to plant tissue. He states that plants distinctly react to the actions and thoughts of human beings. Similar results have been obtained quite independently in the Soviet Union.

The American criminologist has actually devised a crime model. Six persons, one at a time, are directed into a room where two flowers have been placed. Baxter then enters the room and discovers that one of the flowers has been destroyed. To establish the "plant's murderer," the scientist applies electrodes to the remaining flower, and then summons one at a time the six participants in the experiment. The plant immediately points out the "criminal" by a change in his encephalogram.

Following Baxter's work, Doctor of Psychological Sciences V. N. Pushkin, after making a series of plant tests of his own, reports as follows:

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"...The living plant cell (blossom cell) reacts to processes taking place in the nervous system (emotional state of the person)... A person's psyche, no matter how complex--perception, intellection, memory and so on--is never more than a specialization of the 'information service' which functions on the level of the plant cell." Here we observe an interaction between living organisms at a distance--an interaction which is the object of study of the parapsychologist. Of great promise for future criminal investigation is the use of plants in identifying the perpetrators of violent crimes. According to Academician B. Dombrovskiy and Docent V. Inyushin, "It is likely that the conclusions of American scientists regarding the practical application of plant reception in forensic research are somewhat too categorical. But the experiments of C. Baxter cannot fail to attract the attention of experimenters."

Our knowledge of the world around us is still far from complete. Undoubtedly, further research in parapsychology will enrich many forms of human activity, and in particular supply new methods for crime detection.

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PHYSIOLOGY

ACHIEVEMENTS IN BRAIN RESEARCH IN 1977 DISCUSSED

Moscow FIZIOLOGIYA CHELOVEKA in Russian No 5, 1978 pp 922-930

/Article: "Overall Scientific Research Programs in the Field of Biology and Medicine and Ways of Realizing Them"/

Basic Research Results in 1977 and the Prospects for Their Further Development Within the Framework of the "Brain" Program of the USSR Academy of Sciences in the Section "Principles and Mechanisms of the Activity of the Human Brain"

/Text/ An analysis of the 1977 scientific research results presented in the report by N. P. Bekhtereva, director of this section, at the 23d Joint Session of the Scientific Council for Overall Problems of Human and Animal Physiology of the USSR Academy of Sciences held jointly with the Scientific Council for Problems of Applied Human Physiology of the USSR Academy of Sciences (17-19 April 1978) made it possible to single out the scientific institutions of the USSR Academy of Sciences, the USSR Academy of Medical Sciences and the ministries of health of the USSR and the Union republics most actively working in the field of neurophysiology of the human brain and neuropsychology, developing the principles of and approaches to memory control in health and disease and investigating the mechanisms of information coding in the brain and the mechanisms of speech perception.

In the field of neurophysiology of the healthy and sick human brain the generalization of the results of neurophysiological investigation of the brain mechanisms ensuring man's psychic processes was the most significant in 1977. The principles of neurophysiological coding of verbal signals revealed during previous years were confirmed. When decision making mechanisms were studied, data were obtained on the possibility of forecasting results according to a simultaneous appearance of blocks of elementary code sequences in the dynamics of impulse activity in various neuron populations of the cortex and subcortical formations.

Confirmation of the significance of code sequences in investigations with the introduction of quasiwords, which were artificially given a certain meaning, into the semantic field was obtained. It was found that their inclusion in the semantic field occurs as a result of the formation of the same

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